

# A residence made entirely of Swiss wood, Köniz

2016

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The residential building Arborea in Köniz, which is hidden behind the arcades built in solid construction, is a pure wooden building.

## The project

The Arborea residential building is located on a quiet neighborhood street near the center of Köniz and only a few minutes' walk from the train station. There are 21 apartments in the five-story building. The residential units have 2.5 to 4.5 rooms and are between 53 and 108 square meters in size. The apartments are accessible via the arcades. According to the real estate management's invitation to tender, the new residential building is designed for tenants "who combine their idea of urban living with proximity to the city center, an environmentally compatible lifestyle and openness." For example, the arcades are shared, and tenants also have access to a common room. The construction method The special features of the residential building: The outer pergola, via which the residents enter their apartments

## The construction

The structure, which is completely decoupled from the wooden cube. The arbors are supported by curved concrete columns reminiscent of tree trunks. The residential building is a wooden structure. The interior walls made of solid wood panels are load-bearing and bracing. The entire horizontal bracing has thus been solved via the timber construction, i.e. via the interior walls, and not, as is so often the case, via a concrete core. The residential building also manages without steel beams. All the wood used for Arborea comes from Switzerland. The façade is made of untreated wood from silver fir trees from the Emmental, the window frames are made of larch, and those of the fireproof windows are made of oak. The building has a very well insulated building envelope. The design and materialization of the facade support the passive use of solar energy. Solar collectors cover the flat roof almost completely and supply the residential building with the necessary residual energy.



Free view to the outside thanks to large window fronts



Contrasting: wooden housing meets concrete porch



Lots of wood in the Arborea (Photos: Halle 58 Architekten, Christine Blaser)



Exterior view

### Construction Data

- Exterior walls frame construction 1000 m<sup>2</sup>
- Interior walls of cross laminated timber 1100 m<sup>2</sup>
- Ceilings from wood-concrete composite 1720 m<sup>2</sup>

### Construction costs

- BKP 1-9: 9.6 Mio
- BKP 2: 8.7 Mio
- BKP 214: 1.6 Mio

### Services of Timbatec

- Feasibility study
- Pre-construction/construction project
- Call for tenders
- Implementation project

### Timber construction engineer

Timbatec Holzbauingenieure Schweiz AG, Bern  
3012 Bern

### Building physicist

Marc Rüfenacht bauphysik & energie  
3012 Bern

### Civil engineer

Tschopp Ingenieure GmbH  
3006 Bern

### Owner

Raiffeisen Pensionskasse Genossenschaft  
9001 St. Gallen

### Architect ARGE PSO (lead management)

Halle 58 Architekten  
3005 Bern

### Timber construction

Hector Egger Holzbau AG  
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